

AMENDMENTS TO THE SPECIFICATION

99-PDC-355

CIRCUIT INTERRUPTER EMPLOYING A MECHANISM TO OPEN A POWER CIRCUIT IN RESPONSE TO A RESISTOR BODY BURNING OPEN

CROSS-REFERENCE TO RELATED APPLICATION

This application is related to commonly assigned, co-pending United States Patent Application Serial No. ~~09/592,693~~, filed June 13, 2000 ~~6,487,057~~, -entitled "Ground Fault Current Interrupter/Arc Fault Current Interrupter Circuit Breaker With Fail Safe Mechanism".

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates to circuit interrupters and, more particularly, to ground fault and/or arc fault current interrupters and, more particularly, to circuit breakers having a mechanism for opening the associated power circuit in the event of a failure of the circuit breaker separable contacts to trip open, such as, for example, a failure in a ground fault and/or arc fault trip circuit.

Background Information

In small circuit breakers, commonly referred to as miniature circuit breakers, used for residential and light industrial applications, overcurrent protection is typically provided by a thermal-magnetic trip device. This trip device typically includes a bimetal strip that is heated and bends in response to a persistent overload condition. The bimetal, in turn, unlatches a spring powered operating mechanism that opens the separable contacts of the circuit breaker to interrupt current flow in the protected power system.

For short circuit protection, an armature, which is attracted by sizable magnetic forces generated in a magnetic core by a short circuit, unlatches, or trips, a circuit breaker operating mechanism. As an example, the magnetic type actuation occurs when the hot line conductor becomes directly connected with ground or neutral, thereby bypassing the load. In many applications, a miniature circuit breaker may also provide ground fault and/or arc fault protection.

Ground fault current interrupter (GFCI) and arc fault current interrupter (AFCI) circuit breakers are well known in the art. Examples of ground

10/28/2003 BSAVASI1 00000132 050275 10003588

01 FC:1201 258.00 DA
02 FC:1202 18.00 DA

- 1 -